ABSTRACT

A system for learning model-based lifecycle diagnostics includes an integrated development environment, a run-time environment, and a bi-directional link. The integrated development environment includes software tools linked within. The run-time environment includes agents that detect failures linked within. The bi-directional link links the integrated development environment and the run-time environment. In the system, failures detected in the run-time environment can be traced back to the integrated development environment to determine model errors. A method of diagnosing model errors, in a software environment including an integrated development environment and a run-time environment bi-directionally linked, includes detecting failures within the run-time environment; tracing the failures back to the integrated development environment; and identifying the model errors in the integrated development environment based on the tracing of the failures.